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EXAMINER	
STAICOVICI, STEFAN	

ART UNIT	PAPER NUMBER
1732	

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/618,985	WONG, TIT SHING	
	Examiner	Art Unit	
	Stefan Staicovici	1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 July 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-45* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed July 14, 2005 has been entered. Claims 1-45 are pending in the instant application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 6-9, 12-13, 24, 29-31, 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Valyi (USPN 4,115,494) in view of Taluba (USPN 4,143,453).

Valyi ('494) teaches the basic claimed process for making a deformable, hollow thermoplastic article (abstract) comprising: (a) providing an injection moldable flexible thermoplastic elastomer (abstract); (b) providing a first mold (column 3, lines 20-21); the mold comprising exterior mold front and rear sections and an interior core extending vertically into the mold cavity (column 3, lines 20-21), the first mold comprising a parison injection station (column 3, lines 6-7), wherein the exterior sections of the first mold are spaced apart from the interior core to define a cavity in the shape of a substantial portion of the article (figure 1 , number 11), (c) assembling the exterior mold sections of the first mold thereby forming a planar junction between the exterior mold pads (figure 1, number 11), (d) injecting the elastomer into

the first mold cavity to form a parison (column 3, lines 6-8), (e) opening the exterior mold parts of the first mold and transferring the rear section of the first mold and the parison to a blow station (figure 2B, number 20), (f) providing a second mold at the blow station, the second mold comprising an exterior mold front section, the rear section of the first mold, and an interior core, wherein the exterior mold front section and the rear section of the first mold exterior sections are oriented latitudinally (see mold parts (21) and (23) in Figure 2B) and the exterior sections of the second mold are spaced apart from the interior core to define a cavity in the shape of the entirety of the hollow article (column 4, lines 18-22), (g) drawing a vacuum on, and injecting compressed gas into, the second mold, thereby dispersing the parison relatively evenly, and with a substantially uniform thickness, against the second mold cavity interior surface to form the hollow article (column 4, lines 32-33), the hollow article having an opening for removing the interior core (figure 2B), (h) cooling the dispersed parison, thereby causing it to set and form the hollow article segment (abstract) and (f) separating the second mold interior core from the hollow article (column 4, lines 5-57).

Regarding claim 1, Valyi ('494) does not teach that the diameter of the opening is smaller than the diameter of the core to pass through the opening. Taluba ('453) teaches the diameter of the opening is smaller than the diameter of the core to pass through the opening (figure 2A, numbers 19, 21, 22a and 23a). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use a blow pin/core whose diameter is larger than the diameter of the opening in the process of Valyi ('494). The motivation to do so would have been

to create a doll's head with a lip that allows the head to be applied to the corresponding body portion (column 1 , lines 37-42 of Taluba ('453)).

With regard to claim 6, Taluba ('453) teaches using KRATON@, which is a block styrene and butadiene copolymer (column 4, line 16).

With regard to claim 7, Taluba ('453) teaches using KRATON@, which is a block styrene and butadiene copolymer (column 4, line 16). KRATON@ inherently possesses an elasticity between 250-550%.

With regard to claim 8, Valyi ('494) teaches a vacuum is drawn on the second mold through a valve pin inserted through the second mold cavity (column 9, lines 12-13), and that the pressurized gas is injected into the second mold cavity through a movable core pin (column 4. lines 32-33).

With regard to claim 9, Valyi ('494) teaches that a vacuum is drawn on, and compressed gas is injected into the second mold relatively simultaneously (column 9, lines 7-13).

With regard to claim 12, Taluba ('453) teaches the interior core of the second mold includes a hollow conduit in communication with the interior of the deformable hollow thermoplastic article-forming cavity, and a pressurized gas is blown through the conduit and into the hollow interior of the deformable hollow thermoplastic article to separate it from the second mold interior core (column 4, lines 4-10).

With regard to claim 13, Taluba ('453) teaches the second mold is designed with a pre-determined ratio of the diameter of the core relative to the diameter of the opening to allow removal of the core through the opening (figure IB, mold has an opening with a fixed size), said

pre-determined ratio being less than a maximum stretchability limit of the opening of deformable hollow thermoplastic article to be formed from the flexible thermoplastic elastomer. The finished head taught by Taluba ('453) is inherently stretched less than its maximum stretchability limit so as to maintain its shape when it is affixed atop the finished doll body.

With regard to claim 24, Valyi ('494) teaches a process for making a deformable, hollow thermoplastic article (abstract) comprising: (a) providing an injection moldable flexible thermoplastic elastomer (abstract); (b) providing a first mold (column 3, lines 20-21), the mold comprising exterior mold front and rear sections and an interior core extending vertically into the mold cavity (column 3, lines 20-21), the first mold comprising a parison injection station (column 3, lines 6-7), wherein the exterior mold front section and the rear section of the first mold exterior sections are oriented latitudinally (see mold parts (21) and (23) in Figure 2B) and the exterior sections of the first mold are spaced apart from the interior core to define a cavity in the shape of a substantial portion of the article (figure 1 , number 11), (c) assembling the exterior mold sections of the first. mold thereby forming a planar junction between the exterior mold parts (figure 1, number 11), (d) injecting the elastomer into the first mold cavity to form a parison (column 3, lines 6-8)., (e) opening the exterior mold parts of the first mold and transferring the rear section of the first mold and the parison to a blow station (figure 2B, number 20), (f) providing a second mold at the blow station, the second mold comprising an exterior mold front section, the rear section of the first mold, and an interior core, wherein the exterior sections of the second mold are spaced apart from the interior core to define a cavity in the shape of the entirety of the hollow article (column 4, lines 18-22), (g) drawing a vacuum on, and

injecting compressed gas into, the second mold, thereby dispersing the parison relatively evenly, and with a substantially uniform thickness, against the second mold cavity interior surface to form the hollow article (column 4, lines 32-33), the hollow article having an opening for removing the interior core (figure 2B), (h) cooling the dispersed parison, thereby causing it to set and form the hollow article segment (abstract); and separating the second mold interior core from the hollow article (column 4, lines 5-57), but does not explicitly teach that the diameter of the opening is smaller than the diameter of the core to pass through the opening or that the article is a doll's head. Taluba ('453) teaches the diameter of the opening is smaller than the diameter of the core to pass through the opening (figure 2A, numbers 19, 21, 22a and 23a) and that the article produced is a doll's head (abstract). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use a blow pin/core whose diameter is larger than the diameter of the opening in the process of Valyi ('494) . The motivation to do so would have been to create a doll's head with a lip that allows the head to be applied to the corresponding body portion (column 1, lines 37-42 of Taluba ('453)).

With regard to claim 29, Taluba ('453) teaches using KRATON@, which is a block styrene and butadiene copolymer (column 4, line 16).

With regard to claim 30, Taluba ('453) teaches using KRATON@, which is a block styrene and butadiene copolymer (column 4, line 16). KRATON@ inherently possesses an elasticity between 250-550%.

With regard to claim 31 , Valyi ('494) teaches a vacuum is drawn on the second mold through a valve pin inserted through the second mold cavity (column 9, lines 12-13), and that the

pressurized gas is injected into the second mold cavity through a movable core pin (column 4, lines 32-33).

With regard to claim 34, Taluba ('453) teaches the interior core of the second mold includes a hollow conduit in communication with the interior of the deformable hollow thermoplastic article-forming cavity, and a pressurized gas is blown through the conduit and into the hollow interior of the deformable hollow thermoplastic article to separate it from the second mold interior core (column 4, lines 4-10).

With regard to claim 35, Taluba ('453) teaches the second mold is designed with a pre-determined ratio of the diameter of the core relative to the diameter of the opening to allow removal of the core through the opening (figure IB, mold has an opening with a fixed size), said pre-determined ratio being less than a maximum stretchability limit of the opening of deformable hollow thermoplastic article to be formed from the flexible thermoplastic elastomer. The finished head taught by Taluba is inherently stretched less than its maximum stretchability limit so as to maintain its shape when it is affixed atop the finished doll body.

4. Claims 5, 10-11, 14-23, 28, 33, and 36-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Valyi (USPN 4,115,494) in view of Taluba (USPN 4,143,453) and in further view of Fekete *et al* (USPN 6,403,003).

Valyi ('494) in view of Taluba ('453) teach the basic claimed process as described above.

With regard to claim 5, Valyi ('494) in view of Taluba ('453) does not teach that a vacuum is drawn upon the first mold cavity for a few seconds prior to the end of the elastomer

injection period. Fekete *et al* ('003) teach that a vacuum is drawn upon the first mold cavity for a few seconds prior to the end of the elastomer injection period. It is submitted that a few seconds is about 3-10 seconds. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to draw a vacuum for a few seconds (3-10 mseconds) prior to the end of the elastomer injection period as taught by Fekete *et al* ('003) in the process of Valyi ('494) in view of Taluba ('453). The motivation to do so would have been to decrease the cycle time (column 8, lines 49-58 of Fekete *et al* ('003)).

With regard to claim 10, Fekete *et al* ('003) teaches that the deformable, hollow thermoplastic article is a hollow doll head with ears and a hair line, the hair line forming a substantially continuous circle extending around the top of the head and above the ears; and a mold interior core defines a cavity in the shape of the portion of the hollow doll head below the hair line. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the mold taught by Fekete *et al* ('003) as the first mold in the process of Valyi ('494) in view of Taluba ('453). The motivation to do so would have been to create a parison shaped more closely to the finished product (Figure 2B of Valyi ('494)) and to create a doll head where the sprue is located above the hair line to disguise it (Fekete *et al* ('003), column 2, lines 31-39).

With regard to claim 11, Fekete *et al* ('003) teaches the interior core of the second mold includes a core ejector pin and a core sleeve surrounding the pin, and upon separation of the second mold interior core from the deformable hollow thermoplastic article the core sleeve is retained in a fixed position relative to the ejector pin and the ejector pin is forced up against the

deformable hollow thermoplastic article to push the deformable hollow thermoplastic article off of the core sleeve, thereby removing the deformable hollow thermoplastic article from the ejector pin (column 6, lines 31-50). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have combined an ejector pin as taught by Fekete *et al* ('003) in the process taught of Valyi ('494) in view of Taluba ('453). The motivation to do so would have been to more easily remove the finished product from the mold.

With regard to claim 14, Taluba ('453) teaches that the thermoplastic elastomer is a S- B- S copolymer (column 4, lines 16-18). Fekete *et al* ('003) teaches that the pre-determined ratio is about 3, which is more than about 2 (column 8, lines 2-4). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use a core with a ratio that is more than about 2. The motivation to do so would have been to create a parison that more closely resembles the finished product.

With regard to claim 15, Fekete *et al* ('003) teaches placing a removable object onto the surface of the interior core of the second mold; assembling the exterior parts of the second mold around the core and removable object, and overmolding the removable object with the thermoplastic elastomer when the parison is dispersed within the second mold cavity interior surface, such that the removable 6bject is retained in the deformable hollow thermoplastic article when the interior core is removed (column 4, lines 38-53).

With regard to claim 16, Fekete *et al* ('003) teaches the thermoplastic elastomer overmolds only a portion of the removable object such that the removable object protrudes

through the exterior surface of the deformable hollow thermoplastic article (column 4, lines 38-53).

With regard to claim 17, Fekete *et al* ('003) teaches the removable object is a doll eye and the deformable hollow thermoplastic article is a doll head (column 4, lines 38-53).

With regard to claim 18, Fekete *et al* ('003) teaches placing at least one portion of an exterior pad of the first mold in contact with the interior core to define at least one opening to be formed in the deformable hollow thermoplastic article (column 4, lines 32-37).

With regard to claim 19, Fekete *et al* ('003) teaches placing an article into at least one of said openings formed by the contact between the exterior mold pad and interior core after the deformable hollow thermoplastic article is removed from the second mold interior core (column 4, lines 32-37).

With regard to claim 20, Fekete *et al* ('003) teaches removing the head from the second mold interior core, wherein the second mold interior core comprises at least two separable sections, and the hollow doll head is removed from the second mold interior core by separately and individually removing each separable core section from the head through the opening (column 5, lines 1-8).

With regard to claim 21 , Fekete *et al* ('003) teaches least one of the interior core separable sections of the second mold is a key section that must be removed first to allow other separable sections to be later removed (column 5, lines 9-20).

With regard to claim 22, Fekete *et al* ('003) teaches that after the interior core separable

sections of the second mold are removed from the deformable hollow thermoplastic article, the sections are reassembled and replaced in the exterior of the second mold for forming another deformable hollow thermoplastic article (column 5, lines 1-8).

With regard to claim 23, Fekete *et al* ('003) teaches rooting hair-material to the top of the doll head above and below the part line with a sufficient density such that the part line is not observable to an ordinary observer holding the doll at arms length (column 6, lines 51-61).

With regard to claim 28, Valyi ('494) in view of Taluba ('453) does not explicitly teach that a vacuum is drawn upon the first mold cavity for a few seconds prior to the end of the elastomer injection period. Fekete *et al* ('003) teaches a vacuum is drawn upon the first mold cavity for a few seconds prior to the end of the elastomer injection period. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to draw a vacuum for a few seconds prior to the end of the elastomer injection period in the process taught by Valyi ('494) in view of Taluba ('453). The motivation to do so would have been to decrease the cycle time (Fekete et al, column 8, lines 49-58).

With regard to claim 33, Fekete *et al* ('003) teaches the interior core of the second mold includes a core ejector pin and a core sleeve surrounding the pin, and upon separation of the second mold interior core from the deformable hollow thermoplastic article the core sleeve is retained in a fixed position relative to the ejector pin and the ejector pin is forced up against the deformable hollow thermoplastic article to push the deformable hollow thermoplastic article off of the core sleeve, thereby removing the deformable hollow thermoplastic article from the ejector pin (column 6, lines 31-50). At the time of the invention, it would have been obvious to a person

of ordinary skill in the art to have combined an ejector pin taught by Fekete *et al* ('003) with the process of Valyi ('494) in view of Taluba ('453). The motivation to do so would have been to more easily remove the finished product from the mold.

With regard to claim 36, Taluba ('453) teaches that the thermoplastic elastomer is a S- B- S copolymer (column 4, lines 16-18). Fekete *et al* ('003) teaches that the pre-determined ratio is about 3, which is more than about 2 (column 8, lines 2-4). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use a core with a ratio that is more than about 2. The motivation to do so would have been to create a parison that more closely resembles the finished product.

With regard to claim 37, Fekete *et al* ('003) teaches placing a removable object onto the surface of the interior core of the second mold; assembling the exterior parts of the second mold around the core and removable object', and overmolding the removable object with the thermoplastic elastomer when the parison is dispersed within the second mold cavity interior surface, such that the removable object it retained in the deformable hollow thermoplastic article when the interior core is removed (column 4, lines 38-53).

With regard to claim 38, Fekete *et al* ('003) teaches the thermoplastic elastomer overmolds only a portion of the removable object such that the removable object protrudes through the exterior surface of the deformable hollow thermoplastic article (column 4, lines 38-53).

With regard to claim 39, Fekete *et al* ('003) teaches the removable object is a doll eye and the deformable hollow thermoplastic adicle is a doll head (column 4, lines 38-53).

With regard to claim 40, Fekete *et al* ('003) teaches placing at least one portion of an exterior part of the first mold in contact with the interior core to define at least one opening to be formed in the deformable hollow thermoplastic article (column 4, lines 32-37).

With regard to claim 41 , Fekete *et al* ('003) teaches placing an article into at least one of said openings formed by the contact between the exterior mold part and interior core after the deformable hollow thermoplastic article is removed from the second mold interior core (column 4, lines 32-37).

With regard to claim 42, Fekete *et al* ('003) teaches removing the head from the second mold interior core, wherein the second mold interior core comprises at least two separable sections, and the hollow doll head is removed from the second mold interior core by separately and individually removing each separable core section from the head through the opening (column 5, lines 1-8).

With regard to claim 43, Fekete *et al* ('003) teaches least one of the interior core separable sections of the second mold is a key section that must be removed first to allow other separable sections to be later removed (column 5, lines 9-20).

With regard to claim 44, Fekete *et al* ('003) teaches that after the interior core separable sections of the second mold are removed from the deformable hollow thermoplastic article, the sections are reassembled and replaced in the exterior of the second mold for forming another deformable hollow thermoplastic article (column 5, lines 1-8).

With regard to claim 45, Fekete *et al* ('003) teaches rooting hair-material to the top of the doll head above and below the part line with a sufficient density such that the part line is not observable to an ordinary observer holding the doll at arms length (column 6, lines 51-61).

5. Claims 2-4 and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Valyi (USPN 4,115,494) in view of Taluba (USPN 4,143,453) and in further view of Fekete *et al* (USPN 6,403,003), Belcher (USPN 6,733,716) and Winstead (USPN 2,702,411).

Valyi ('494) in view of Taluba ('453) teach the basic claimed process as described above.

With regard to claim 2, Valyi ('494) in view of Taluba ('453) does not explicitly teach that the parison injection station pressure is from about 200 psi to about 1000 psi, the second mold cavity vacuum pressure ranges from about -7 psig to about -14.5 psig, and the pressure of the compressed gas injected into the second mold ranges from about 80 psig to about 1000 psig. Fekete *et al* ('003) teaches injection molding where the thermoplastic is injected at a pressure of 200 to 1000 psi (column 8, line 28). Belcher ('716) teaches blow molding where the pressure of the compressed gas injected into the mold ranges from about 100 psi to about 750 psi, which overlaps the claimed range of about 80 psig to about 1000 psig (column 6, lines 15-18). Winstead ('411) teaches a mold cavity vacuum pressure of 15 psi, which is about 14.5 psig (column 3, lines 59-63). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine these result effective variables taught by Fekete *et al* ('003), Belcher ('716) and Winstead ('411) with the process taught by Valyi ('494) in view of Taluba ('453). The motivation to do so would have been to maintain the thermoplastic at the proper temperature and pressure to conform it to the mold. Additionally, it has been held that

discovering the optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

With regard to claim 3, Fekete *et al* ('003) teaches that the parison injection station temperature is from about 300 to 550 degrees C, which overlaps the claimed range of 150-300 degrees C (column 8, line 31). Belcher ('716) teaches that the temperature of the compressed gas injected into the second mold ranges from about 40 to about 120 degrees F (4.4 to 48.9 degrees C), which overlaps the claimed range of about 30 degrees C to 40 degrees C. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine these result effective variables in the process taught by Valyi ('494) in view of Taluba ('453). The motivation to do so would have been to maintain the thermoplastic material at the proper temperature and pressure to conform it to the mold. Additionally, it has been held that discovering the optimum value of a result effective variable involves only routine skill in the ad. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

With regard to claim 4, Fekete *et al* ('003) teaches that the elastomer is injected into the first mold cavity over a period of from about 0.2 to about 6 seconds and the cooled and dispersed parison sets within the second mold in about 5 seconds to about 90 seconds (column 8, lines 24-38). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine these result effective variables with the process taught by Valyi ('494) in view of Taluba ('453). The motivation to do so would have been to maintain the thermoplastic at the proper temperature and pressure to conform it to the mold. Additionally, it has been held that

discovering the optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

With regard to claim 25, Valyi ('494) in view of Taluba ('453) does not explicitly teach that the parison injection station pressure is from about 200 psi to about 1000 psi, the second mold cavity vacuum pressure ranges from about -7 psig to about -14.5 psig, and the pressure of the compressed gas injected into the second mold ranges from about 80 psig to about 1000 psig. Fekete *et al* ('003) teaches injection molding where the thermoplastic is injected at a pressure of 200 to 1000 psi (column 8, line 28). Belcher ('716) teaches blow molding where the pressure of the compressed gas injected into the mold ranges from about 100 psi to about 750 psi, which overlaps the claimed range of about 80 psig to about 1000 psig (column 6, lines 15-18). Winstead ('411) teaches a mold cavity vacuum pressure of 15 psi, which is about 14.5 psig (column 3, lines 59-63). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine these result effective variables with the process taught by Valyi ('494) in view of Taluba ('453). The motivation to do so would have been to maintain the thermoplastic at the proper temperature and pressure to conform it to the mold. Additionally, it has been held that discovering the optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

With regard to claim 26, Fekete *et al* ('003) teaches that the parison injection station temperature is from about 300-550 degrees C, which overlaps the claimed range of 150-300 degrees C (column 8, line 31). Belcher ('716) teaches that the temperature of the compressed gas injected into the second mold ranges from about 40 to about 120 degrees F (4.4 to 48.9 degrees

C), which overlaps the claimed range of about 30 degrees C to 40 degrees C. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine these result effective variables with the process taught by Valyi ('494) in view of Taluba ('453). The motivation to do so would have been to maintain the thermoplastic at the proper temperature and pressure to conform it to the mold. Additionally, it has been held that discovering the optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). ,

With regard to claim 27, Fekete *et al* ('003) teaches that the elastomer is injected into the first mold cavity over a period of from about 0.2 to about 6 seconds and the cooled and dispersed parison sets within the second mold in about 5 seconds to about 90 seconds (column 8, lines 24-38). At the time of the invention, it would have been obvious to a person of ordinary skill in the ad to combine these result effective variables with the process taught by Valyi ('494) in view of Taluba ('453). The motivation to do so would have been to maintain the thermoplastic at the proper temperature and pressure to conform it to the mold. Additionally, it has been held that discovering the optimum value of a result effective variable involves only routine skill in the ad. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Response to Arguments

6. Applicant's remarks filed July 14, 2005 have been considered.

7. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on

combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

8. Applicant argues that "*Valyi* does not disclose that an exterior mold front section which is oriented latitudinally relative to the rear section of a first mold exterior section can be used to disperse a parison relatively evenly, and with a substantial uniform thickness" (see page 13 of the amendment filed 7/14/05). In response, it is noted that Valyi ('494) specifically teaches providing a second mold at the blow station, the second mold comprising an exterior mold front section, the rear section of the first mold, and an interior core, wherein the exterior mold front section and the rear section of the first mold exterior sections are oriented latitudinally (see mold parts (21) and (23) in Figure 2B) and the exterior sections of the second mold are spaced apart from the interior core to define a cavity in the shape of the entirety of the hollow article (column 4, lines 18-22). Further, Valyi ('494) teaches drawing a vacuum on, and injecting compressed gas into, the second mold, thereby dispersing the parison against the second mold cavity interior surface to form the hollow article (column 4, lines 32-33). It is noted that if the dispersion of the parison were not evenly, as Applicant argues, the molding process of Valyi ('494) would not occur as described. Further, it is noted that when blowing a pressurized gas into a closed cavity the gas will expand uniformly in all directions and as such a uniform pressure will be applied to the parison, hence dispersing the parison relatively evenly, and with a substantial uniform thickness.

9. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., making a

hollow doll head) (see pages 13 and 16-17 of the amendment filed 7/14/05) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

10. Applicant argues that the Taluba ('453) does not teach a "*substantially* narrower diameter than that of the interior core" (emphasis added) (see page 14 of the amendment filed 7/14/05). In response, it is noted that the claimed invention is limited to the "diameter of the opening being smaller than the diameter of the core," hence not "*substantially* narrower" (emphasis added) as Applicant argues. As shown above, Taluba ('453) teaches that the diameter of the opening is smaller than the diameter of the core to pass through the opening (figure 2A, numbers 19, 21, 22a and 23a).

11. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning (see page 15 of the amendment filed 7/14/05), it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

12. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching,

suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Valyi ('494) teaches a process for making a deformable, hollow thermoplastic article (abstract) including, (a) providing an injection moldable flexible thermoplastic elastomer (abstract); (b) providing a first mold having an exterior mold front and rear sections and an interior core extending vertically into the mold cavity, and a parison injection station such that the exterior sections of the first mold are spaced apart from the interior core to define a cavity in the shape of a substantial portion of the article, (c) assembling the exterior mold sections of the first mold thereby forming a planar junction between the exterior mold pads (d) injecting the elastomer into the first mold cavity to form a parison, (e) opening the exterior mold parts of the first mold and transferring the rear section of the first mold and the parison to a blow station, (f) providing a second mold at the blow station, the second mold comprising an exterior mold front section, the rear section of the first mold, and an interior core, wherein the exterior mold front section and the rear section of the first mold exterior sections are oriented and the exterior sections of the second mold are spaced apart from the interior core to define a cavity in the shape of the entirety of the hollow article, (g) drawing a vacuum on, and injecting compressed gas into, the second mold, thereby dispersing the parison relatively evenly, and with a substantially uniform thickness, against the second mold cavity interior surface to form the hollow article, the hollow article having an opening for removing the interior core, (h) cooling the dispersed parison, thereby causing it to set and form the hollow article segment and (f) separating the

second mold interior core from the hollow article. Taluba ('453) teaches the diameter of the opening is smaller than the diameter of the core to pass through the opening (figure 2A, numbers 19, 21, 22a and 23a). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use a blow pin/core whose diameter is larger than the diameter of the opening in the process of Valyi ('494). The motivation to do so would have been to create a doll's head with a lip that allows the head to be applied to the corresponding body portion (column 1 , lines 37-42 of Taluba ('453)), hence providing for an improved process by allowing such products to be manufactured.

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stefan Staicovici, Ph.D. whose telephone number is (571) 272-1208. The examiner can normally be reached on Monday-Friday 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael P. Colaianni, can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Stefan Staicovici, PhD

Stefan Staicovici 9/29/05

Primary Examiner

AU 1732

September 29, 2005